

Buy Recycled: Make it Your Business

by Marta Kravech, State Agency Buy Recycled Campaign

During the past decade, Californians have worked to reduce waste going to landfills and lessen environmental impacts. In the twenty-first century, we will see more emphasis on conserving natural resources and using more recycled-content products. Buying recycled means purchasing products made from recovered materials that would otherwise end up in the landfill. Before consumers can buy recycled products, manufacturers must recover recycled (rather than virgin) materials to make new products. Consumer demand for these products is essential for stimulating market growth.

A recycled-content product is often more durable and less toxic, and may reduce the risk of adverse health impacts. Over its life cycle, a recycled-content product may be a cost savings and a long-term asset for the owner. Now that recycled-content products are more competitively priced, they are becoming more widespread and readily available. They provide a clear consumer benefit, beyond appealing to the environmental conscience.

Benefits of Buying Recycled-Content Products

The benefits of buying recycled-content products (RCP) are not always comparable to those of products made from virgin materials but some RCPs offer the following customer benefits:

Lower purchasing costs – Reformulated latex paint costs less than conventional high-performance latex paint, yet it is comparable in quality.

Improved durability – Plastic lumber is a substitute for new wood. It does not rot, and is nontoxic.

Reduced environmental impact – Re-refined oil cuts oil consumption. If it meets the American Petroleum Institute's standards, the use of re-refined oil will not affect a car's warranty or its performance.

Longer warrantee – Plastic partitions in place of metal or wood sometimes offer longer warranties, and some are 100 percent recyclable. The initial cost may be more, but the savings occur over the life cycle of the product.

Improved comfort – Recycled rubber tires made into flooring for indoor and outdoor use provides noise reduction, shock absorption, and pedestrian comfort.

Better indoor air quality and lower toxicity – Peel-and-stick recycled-content carpets do not emit noxious gases or unpleasant odors.

How to Select a Recycled-Content Product

Before selecting materials consider these recommendations:

Understand use for the material. Know the function of the product and the conditions under which it will perform in order to maximize the life of the product. The best materials will go to waste if they are not used properly.

Consider budget issues.

Purchasing recycled content products may sometimes cost more, but energy efficiency, indoor air quality, or life cycle of the product may take precedence over cost considerations. And recycled-content products do not necessarily cost more than non-recycled content products.

Ensure material extraction, manufacturing, and recovery process is environmentally sound. If the product has recycled content, make sure it can be recycled or reused. A product with recycled content may be good but may not be recyclable. For example, the glues contained in structural insulated panels used for homebuilding might restrict their use as recycling material.



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The ABCs of Recycled Products

by Linda Hennessy, RCP Database Coordinator

Using recycled-content products can save you money and attract new customers. Many of these products are cost competitive, extremely durable, and need less maintenance. If you are a manufacturer or distributor of products, you should know that many of your customers look for recycled-content products to fulfill "green procurement" policies.

The California Integrated Waste Management Board's Buy Recycled Program promotes **sustainable design and the State's policy to *buy green***. Section 12210 of the California Public Contract Code (PCC) states, "Fitness and quality being equal, all local and state public agencies shall purchase recycled products instead of non-recycled products whenever available at no more than the total cost of the non-recycled products." The Buy Recycled Program assists procurement officers of State agencies, local governments, and private businesses in establishing practices for purchasing recycled-content and other environmentally friendly products.

To assist in that effort, CIWMB put the **Recycled-Content Products Database** on the World Wide Web. The directory lists more than 2,000 manufacturers, distributors, re-processors, and refurbishers of recycled products.

In addition to new products with recycled content, the directory contains listings of businesses that

refurbish telecommunications and computer equipment. Other companies mill timbers and lumber reclaimed from the demolition of old industrial buildings.

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The Recycled-Content Product (RCP) database lists thousands of useful products that may be of interest to you. From **automotive** parts to **construction** products, below are just a few of the items:

Access the Recycled Content Product Database:
www.ciwmb.ca.gov/RCP/

**California Integrated Waste Management Board
Recycled Content Product Directory, MS-14
P.O.Box 4025
Sacramento, CA 95812-4025
rcp@ciwmb.ca.gov
www.ciwmb.ca.gov/rcp/
(916) 341-6606
(916) 319-7274 fax**



- ◆ Architectural plastic lumber, fencing, outdoor furniture, and playground equipment
- ◆ Asphalt and concrete, rubberized playground surfacing, speed bumps and car stops
- ◆ Auto and truck mats, accessories and coolants, re-refined oil and re-treaded tires
- ◆ Bags and boxes (all materials, all uses), bins for recycling, and waste receptacles
- ◆ Benches for malls and transit, business supplies and office furniture. Boat docks and boardwalks, bathroom tiles and fixtures, building blocks and wallboard.
- ◆ Carpet, flooring and ceiling tiles, lighting and roofing, paints and sealants.
- ◆ Compost and landscape materials, pots and planters, hoses and downspouts.
- ◆ Clothing and gifts, promotional items and awards, artwork and toys

Products for the Office

by Rick Hicks, State Agency Buy Recycled Campaign (SABRC)

Get Recharged!

When your toner cartridge runs dry, don't toss it: recycle it and then buy a recharged cartridge. Most dry toner cartridges can be rebuilt and then recharged with new toner. By doing this you are "closing the loop" and saving money, and you are supporting the recharging industry and keeping millions of pounds of material out of landfills.

The recharged toner industry has made many improvements in their products. A quality recharged cartridge will meet Original Equipment Manufacture (O.E.M.) standards. A cartridge is not necessarily just refilled each time it comes in for recharging; instead, after producing a certain number of copies, the manufacturer will rebuild it to O.E.M. standards. You can also purchase refilled ink-jet cartridges or self-refill kits.

Recharged cartridges are rarely to blame for poor printing quality. Instead, many times the culprit is poor preventative maintenance on a printer. By not following a printer manufacturer's procedure for the proper changing out of cartridges, you may be creating

a problem that could cause streaking or spotting. It is a good idea to test-run a new brand of cartridge on a low priority printer to check performance before making further purchases.

If you tried refilled cartridges several years ago and found them unsatisfactory, try them again. The improvements in the industry now offer you a high quality product. Most local office suppliers can offer you quality cartridges as well as quality service. Help stop needless waste going to landfills: the next time you need to purchase a toner cartridge, buy a quality recharged toner cartridge. Generally, purchasing a recharged cartridge will run you 40 to 50 percent less than a new cartridge.



California Resource Recovery Association Annual Conference

**"IMAGINE –
A WORLD
WITHOUT WASTE"**

July 8 – 11, 2001

**Pasadena Convention
Center**

Registration:

CRRA member rate - \$300

Non-member - \$400

Exhibitors: 8 x 10 ft.

booth with one full registration \$850, with two registrations, \$925

The conference welcome reception will be at the Pacific Asia Museum and the awards dinner will be at Castle Green, both beautiful historic Pasadena Landmarks.

Don't miss this exciting event!

**For more
information,
contact the
CRRA Office:
(916) 441-2772**



Products for the Office

by Edgar Rojas

Yesterday's Computer May Be Yours in the Future

Purchase computers containing recycled materials and you will conserve our natural resources, save money, and create new jobs. IBM launched a desktop PC with 100 percent recycled plastic resin. The IntelliStation E Pro system unit, which contains three and a half pounds of plastic, was converted from a prime resin to 100 percent recycled plastic at no extra cost. In fact, by converting the eight separate parts of the system unit, including its decorative covers, one of those parts is now 20 percent less expensive to manufacture. More than 20 distinct part applications for server and commercial desktop product lines containing 13 to 100 percent recycled content are in production with recycled resins. Part applications include internal structural parts and external decorative covers.

Hewlett Packard (HP) also helps to conserve resources by refurbishing and reselling some of their most popular products. In addition, they design many products with recycling options

built in. To simplify recycling, HP introduced material identification codes for batching, sorting, and separating components into similar/dissimilar materials. As part of its environmental management program, HP marks all plastic parts according to ISO 11469 and mold user instructions into the plastic rather than using a paper label. HP operates product-refurbishing centers in the United States, Germany, and Australia, which take back used HP products and refurbish them for resale. Recycling Cathode-ray tubes (CRTs), commonly referred to as monitors, is possible on an industrial scale. There are currently companies in the U.S.A. who recycle CRTs from computers. For example, Envirocycle in the U.S.A. has developed a process to recycle CRTs. The glass is cleaned, sorted, and sent to glass manufacturers for use as feedstock in the manufacture of new CRT glass. CRT glass manufacturers

save costly raw materials when they use recovered CRT glass. These savings can help keep the cost of CRT glass down, presumably leading to lower monitor costs. Using more recovered CRT glass is reported to save energy in the form of natural gas. An industry source at Conversion Technologies suggested that recycling 10 million monitors per year could provide jobs for about 1,000 workers. The next time you are in the market for a computer, save energy, natural resources, and create new jobs by purchasing a computer with recycled parts.



Products for the Office

by Rick Hicks, State Agency Buy Recycled Campaign (SABRC)

Recycled-Content Office Supplies are Numerous

Just about everyone uses office supplies in some form or another. Whether at home, work, or your business, office supplies from paper to packing material are essential to completing most any workload requirement. Numerous office supplies are available with recycled content, such as recharged toner cartridges, plastic desk organizers, packing materials, pencils, steel products, numerous paper products, and many others. A large variety of products are available from office supply companies.

Most office suppliers offer catalogs, and some are available online. When using these catalogs, look carefully for recycled content in the product descriptions, especially postconsumer (*made from consumer recycled material*). Most office supply catalogs are especially good at reporting the postconsumer content. If you shop at the store, read the product labeling carefully for recycled-content percentages; a chasing arrows symbol on labeling is not enough. Sometimes a chasing arrow is only representing recyclability, not recycled content.

Check product brochures and Web sites for recycled content information. Higher postconsumer content is better. State of California purchasers are mandated to certify a total recycled content (TRC) percentage. The TRC is inclusive of both secondary and post consumer materials. (Secondary materials are sometimes called post industrial; i.e., they have not been used by a consumer.)

Office supplies represent a very large purchase obligation for many

government organizations and many businesses, with major environmental benefits. When ordering, remember to ask "Can I get that in recycled content?"



Conversion Technologies For Municipal Residuals Forum

May 3-4, 2001

Sacramento Hilton
2200 Harvard Blvd
Sacramento, CA 95815

Sessions include:

Learning About Conversion Technologies -Hydrolysis, Gasification, Others
Discussing Their Role in Managing Urban Residuals
Identifying Barriers and Solving Problems

For additional information call:
Fernando Berton
California Integrated Waste Management Board
(916) 341-6590
Email: fberton@ciwmb.ca.gov

Construction and Building Products

by John Blue

When Purchasing Choose Recycled-Content Material

The opportunities for buying recycled materials for building construction and maintenance projects are almost limitless. These products do more than demonstrate your commitment to efficient use of natural resources: they all perform as well as or better than virgin materials. Additionally, many offer significant cost savings, both on first-cost and life-cycle bases.

Aggregate

Recycled aggregate, made from used or leftover concrete and asphalt, is widely available at a cost comparable to new material. You can use it to make new asphalt or concrete roads, bridges, utility trenches, and building foundations. It is most commonly used as base material for roads and parking lots. You can arrange to have portable crushers at your work site so material you generate during demolition can be immediately reused on site.

Carpeting

High-quality recycled-content carpeting is widely available in

a variety of colors, patterns, and styles, in both broadloom and tiles. Alternatively, you can use refurbished carpets made by deep cleaning and re-dying used carpet. Using recycled-content carpet backing and padding can also be an excellent way to incorporate recycled materials into your project.

Fiberboard

Several companies are now making fiberboard (also referred to as particle board) from wheat straw, which was traditionally burned after harvesting. The fiberboard is produced in standard dimensions with tongue-and-groove or lap joints, and it can be laminated with a variety of veneers. Wheat straw fiberboard performs as well as or better than wood-based products in moisture resistance and structural strength, with a comparable cost.

Furniture

When it's time to purchase office furnishings, consider reused, recycled-content, and

refurbished furniture. Office manufacturers now have separate divisions to capture this market, each with a unique style to add to your office environment.

Glass and Ceramic Tiles

Recycled ceramic and glass tiles can be a beautiful alternative to traditional tiles. They originate from a variety of waste glass and ceramic materials. These tiles are produced in an endless range of colors, designs, and styles for an endless range of applications. They are available through standard tile suppliers. The performance of each tile varies by its intended application. These tiles, available for both commercial and residential applications, are comparable in cost to traditional high-end tile products.

Insulation

Recycled-content insulation is competitive with the cost of traditional products and is widely available. There are

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Construction and Building Products

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various types of high recycled-content insulation on the market, including cellulose, fiberglass, and mineral wool insulation.

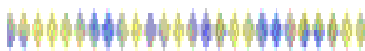
Paint

Recycled latex paint is available in several colors and grades at comparable quality – and usually lower cost – than traditional paint. Several companies manufacture recycled latex paint. You can brush, roll, or spray it like any other paint. Some local governments sell recycled paint from household hazardous waste collection programs at little or no cost.

Plastic Restroom Partitions and Lumber

Wood or metal products subject to moisture damage or abuse may be good candidates to replace with a recycled-plastic alternative. Recycled-plastic restroom partitions outlast and outperform metal partitions. Recycled-plastic lumber, or composite plastic lumber (containing some wood or other fiber), is an excellent alternative to wood for benches, tabletops, planters,

and walkways. It is also a more durable replacement for concrete wheel stops. Recycled-plastic lumber is also an excellent alternative for marinas and piers. It is easier to clean painted graffiti from the plastic surfaces. Because it's harder than wood, recycled plastic is less vulnerable to vandalism with scratching tools.



Next Time, Step Up to Re-refined Oil

by Don Peri, Used Oil Program

The next time you change oil in your truck or auto, why not use re-refined motor oil? Re-refined oil is just as good as virgin oil, is environmentally friendly (requiring less energy to produce it), costs about the same, and should not affect your warranty. Oil does not wear out – it just gets dirty. Re-refined oil is used oil that has been cleaned and then is processed much like crude oil. When the additives are blended into the re-refined base stock, the oil is as good as new! The American Petroleum Institute, the vanguard of the oil world, and the American Automobile Manufacturers Association have developed a certification system to ensure that all engine oils meet stringent standards. Look for the API “donut” on any motor oil that you purchase.

Thousands of vehicles in California have been using re-refined oil in California. Re-refined oil is especially prevalent among fleet vehicles in the public and private sector. Re-refined oil is good for your vehicle and it's good for the environment. Just like aluminum cans that are recycled and re-appear as new products, your used motor oil can do the same.

Construction and Building Products

by Edgar Rojas

Miles of Plastic Walls Could Line California's Freeways

California spends about \$205 million annually on sound wall construction. The state plans to save \$150,000 per mile using recycled-plastic walls.

California Department of Transportation (Caltrans) and Department of Conservation (DOC) studies show that plastic walls are 15 percent less expensive than concrete and wood walls now used along California's freeways. The plastic barriers also decrease sound by 20 percent and use 2.36 million recycled-plastic containers per mile.

Barriers have been made from materials that include concrete, masonry block, wood, metal, earth berms, brick, and

combinations of all these materials. Concrete and block represent more than two-thirds of the total material usage (44 percent and 25 percent respectively). One percent has been constructed with other materials, such as recycled materials, plastics, and composite polymers.

The average unit costs of barrier materials ranges between \$137 and \$244 per square meter. Concrete has been the most popular material. But the cost, \$198 per square meter, is only slightly less than that of brick at \$214 per square meter. Overall average costs for wood, metal, and combination barriers are approximately the same (\$155, \$137, and \$163 per square meter, respectively). Absorptive barriers average \$244 per square meter in cost.

What about the cost of plastic barriers?

Plastic has a distinct advantage over wood when it comes to maintenance and the lifespan of the product. Recycled plastic walls have lower life-cycle costs and create markets to divert large amounts of postconsumer waste plastics from landfills. The recycled plastic walls have no room for graffiti and can be wiped clean with soap or solvent. In some cases, they can be disassembled and moved if it becomes necessary due to a road widening or other construction projects. They can be aesthetically pleasing if filled with soil and planted with vegetation.

As of 1995, the number of linear miles of barriers constructed in the U.S. has tripled over the previous 10 years. Since this trend will continue, the potential for using large quantities of plastic waste in this application is great.

